

MASPS for ADS-B

Rev. A

Tracking Information (committee secretary only)	
Change Issue Number	16
Submission Date	1/12/01
Status (open/closed/deferred)	DEFERRED
Last Action Date	2/28/01

Short Title for Change Issue:	SV reporting rate requirements for users transmitting TCPs
-------------------------------	--

MASPS Document Reference:		Originator Information:	
Entire document (y/n)	Yes	Name	Stephen Heppe/ADSI Inc
Section number(s)		Phone	+1 703-589-1522
Paragraph number(s)	3.3.1	E-mail	steveheppe@adsi-m4.com
Table/Figure number(s)	Table 3-4	Other	

Proposed Rationale for Consideration (originator should check all that apply):	
	Item needed to support of near-term MASPS/MOPS development
X	DO-260/ED-102 1090 MHz Link MOPS Rev A
X	ASA MASPS
	TIS-B MASPS
X	UAT MOPS
	Item needed to support applications that have well defined concept of operation
?	Has complete application description
	Has initial validation via operational test/evaluation
X	Has supporting analysis, if candidate stressing application
	Item needed for harmonization with international requirements
	Item identified during recent ADS-B development activities and operational evaluations
	MASPS clarifications and correction item
	Validation/modification of questioned MASPS requirement item
	Military use provision item
X	New requirement item (must be associated with traffic surveillance to support ASAS)

Nature of Issue:		Editorial		Clarity		Performance	X	Functional
<u>Issue Description:</u> <p>The MASPS are currently drafted from the standpoint of state vector reports (SV) with only tangential reference to trajectory change points (TCPs). At the time the MASPS were drafted, a concept of operations for TCPs was not available. Since then the concept has matured (although it may not be fully mature). Conceptually, it would appear that a TCP is more “valuable” than a SV report and a few TCPs could possibly create greater accuracy and confidence (integrity) than a larger number of SV reports (certainly in terms of long range path deconfliction this is true). Hence, it may be possible for aircraft which are reporting TCPs to provide a lower update rate of SV reports, using the SV reports primarily as monitor checkpoints that the declared route is actually being followed. This would reduce loading on the channel and enhance the delivery performance of other messages by other users. This is particularly true since the aircraft transmitting TCPs are likely to be class A2/A3 with high power transmitters, flying at high altitude, which could adversely affect lower-power GA transmissions at relatively long range.</p>								

<u>Originator’s proposed resolution if any:</u> <p>A splinter group should be setup to determine if SV reporting rate can be reduced for aircraft transmitting TCPs.</p>

Working Group 6 deliberations:

February 28, 2001: This Issue Paper was discussed by ad hoc group at their February 2001 meeting, and was DEFERRED from consideration in DO-242A. The ad hoc group believes this issue will be a candidate for inclusion in future revisions of DO-242 when TCP definitions and applications using them are better defined.

May 24, 2001: While the status of this IP did not change, it was agreed that the general resolution to IP21 “TCP Types and Parameters” will be to move all TCP material from the body of the MASPS and place it in an appendix. In its place will be commentary that the original material was insufficient and will be more fully addressed in a future revision of the MASPS.